

**AMENDMENTS TO THE CLAIMS**

1. (Currently amended) A genetic screening method that is useful or predictive for a predisposition to Alzheimer's disease or diagnostic of determining the existence of or a predisposition to Alzheimer's disease in a human subject animal, the method comprising analysing a DNA bearing sample taken from said subject animal to determine the allelic variants present at one or more of the SNP loci at positions -1082, -819 and -592 of the gene encoding IL-10, wherein a polymorphism selected from the group consisting of a G to A substitution at position -1082, a T to C substitution at position -819 and an A to C substitution at position -592 is determined and the substitution is useful or predictive for a predisposition to Alzheimer's disease or diagnostic of the presence of Alzheimer's disease.
2. (Canceled)
3. (Previously presented) A method according to claim 1 which further comprises analysing the sample to determine the presence of a -174C allele for the gene encoding IL-6 and Apo-E 4<sub>2</sub> carrier status.
4. (Previously presented) A method according to claim 3, which further comprises analysing the sample to determine the presence of the -1082A allele for the gene encoding IL-1.
5. (Withdrawn) A method of treating Alzheimer's disease, autoimmune disease or other neurodegenerative disorder which comprises augmenting the function of a gene having one of the allelic polymorphisms of IL-10 shown in Table I.

6. (Withdrawn) A method of treating Alzheimer's disease, autoimmune disease or other neurodegenerative disorder which comprises decreasing the function of a gene having one of the allelic polymorphisms of IL-10 shown in Table I.
7. (Withdrawn) A method according to claim 5 where the modulation of the function of the gene is by genetic therapy.
8. (Withdrawn) A method according to claim 5 where the modulation of the function of the gene is by pharmacological intervention.
9. (Withdrawn) A method according to claim 8 where the pharmacological intervention is using one or more compounds that enhance or inhibit antigen specific production of interleukin-10 and, optionally, one or more other cytokines.
10. (Withdrawn) A method according to claim 9, characterised in that the other cytokine is selected from the group consisting of interleukin-1 ( $\alpha$  or  $\beta$ ), interleukin-2, interleukin-3, interleukin-4, interleukin-5, interleukin-6, interleukin-7, interleukin-8, interleukin-9, interleukin-11, interleukin-12, interleukin-13, interleukin-14, interleukin-15, interleukin-16, interleukin-17, interferon- $\alpha$ , interferon- $\beta$ , interferon- $\gamma$ , TNF- $\alpha$ , TNF- $\beta$ , G-CSF, GM-CSF, M-CSF, and TGF- $\beta$ .
11. (Withdrawn) DNA fragments and cDNA fragments comprising the allelic polymorphisms of Table I for use in the method of claim 7.
12. (Withdrawn) Use of the DNA or cDNA fragments of claim 11 in a method of screening compounds for the ability to modulate the allelic polymorphisms of Table I.

13. (Withdrawn) Use of the DNA or cDNA fragments of claim 11 in a method of screening compounds for the ability to modulate or prevent Alzheimer's disease.
14. (Withdrawn) Use of cytokines in the preparation of a medicament for the treatment or prophylaxis of diseases which are not neoplastic.
15. (Withdrawn) Use according to claim 14, characterised in that the disease is a neurodegenerative disorder or an autoimmune disorder.
16. (Withdrawn) Use according to claim 14, characterised in that the use is for Alzheimer's disease.
17. (Withdrawn) Use according to any one of claims 14, characterised in that the cytokine is selected from interleukin-1 ( $\alpha$  or  $\beta$ ), interleukin-2, interleukin-3, interleukin-4, interleukin-5, interleukin-6, interleukin-7, interleukin-8, interleukin-9, interleukin-10, interleukin-11, interleukin-12, interleukin-13, interleukin-14, interleukin-15, interleukin-16, interleukin-17, interferon- $\alpha$ , interferon- $\beta$ , interferon- $\gamma$ , TNF- $\alpha$ , TNF- $\beta$ , G-CSF, GM-CSF, M-CSF, and TGF- $\beta$ .
18. (Withdrawn) A method according to claim 6 where the modulation of the function of the gene is by genetic therapy.
19. (Withdrawn) A method according to claim 6 where the modulation of the function of the gene is by pharmacological intervention.
20. (Withdrawn) A method according to claim 19 where the pharmacological intervention is using one or more compounds that enhance or inhibit antigen specific production of interleukin-10 and, optionally, one or more other cytokines.